



Downloadable Dynamometer Database (D³)- Test Summary Sheet

2012 Chevrolet Volt- 72F

Vehicle architecture	EREV
Document date	10/22/2012
Revision Number	1
Notes:	

Vehicle Setup Information

Test cell location	Front
Vehicle dynamometer Input	
Test weight [lb]	4000
Target A [lb]	28.66
Target B [lb/mph]	-0.0132
Target C [lb/mph ²]	0.0202
Test Fuel Information	
Fuel type	EPA Tier II EEE
Fuel density [g/ml]	0.743
Fuel Net HV [BTU/lbm]	18490

Test ID [a]	Cycle	Cold start (CS) Hot start [Hs]	Date	Test Cell Temp [C]	Test Cell RH [%]	Test Cell Baro [in(Hg)]	Vehicle cooling fan speed Speed Match [SM] or constant speed [CS]	Solar Lamps [W/m2]	Vehicle Climate Control settings	Hood Position [Up] or [Closed]	Window Position [Closed] or [Down]	Cycle Distance [mi]	Cycle Fuel economy [mpg] (Emiss Bag)	Cycle HV battery Consumed [gal] (Emiss Bag)	Cycle HV battery Integrated net current [DC Ah]	Cycle HV battery Average Zero crossing Voltage [V]	Cycle HV battery Net Energy [DC Wh]	Cycle HV battery Net Energy Consumption [DC Wh/mi]
Test information				Test cell information		Test Cell setup		Vehicle setup						Electric energy consumption				
Test sequence purpose: Standard testing																		
61209032	UDDS CS		09/19/12	21.94	42.18	29.34	SM	Off	Off	Closed	Closed	7.45	Inf	4.39	386.1	1655.5	222.2	
61209033	UDDS HS- Cycle 1		09/19/12	21.41	43.69	29.35	SM	Off	Off	Closed	Closed	7.45	Inf	4.28	380.1	1585.9	212.9	
61209034	UDDS HS- Cycle 2		09/19/12	21.47	45.75	29.35	SM	Off	Off	Closed	Closed	7.45	Inf	4.34	373.9	1583.3	212.6	
61209035	UDDS HS- Cycle 3		09/19/12	21.56	44.32	29.34	SM	Off	Off	Closed	Closed	7.47	Inf	4.38	369.6	1577.0	211.0	
61209036	UDDS HS- Cycle 4		09/19/12	21.52	44.84	29.34	SM	Off	Off	Closed	Closed	7.46	Inf	4.41	364.6	1567.1	210.2	
61209037	UDDS HS- Cycle 5		09/19/12	22.03	54.26	29.33	SM	Off	Off	Closed	Closed	7.44	Inf	4.48	356.1	1554.4	208.9	
61209038	UDDS HS- Cycle 6		09/19/12	21.08	45.62	29.33	SM	Off	Off	Closed	Closed	7.47	57.3	0.13	1.30	349.7	400.3	53.6
61209039	UDDS HS- Cycle 7		09/19/12	21.46	48.17	29.31	SM	Off	Off	Closed	Closed	7.47	45.7	0.16	0.13	349.5	-4.1	-0.6
61209040	UDDS HS- Cycle 8		09/19/12	21.42	48.33	29.30	SM	Off	Off	Closed	Closed	7.47	44.8	0.17	0.05	349.3	-31.4	-4.2
Full charge test summary												Totals	59.68	0.46	27.7	9888		
61205097a	Highway- Cycle 1		05/29/12	22.07	42.80	29.12	SM	Off	Off	Closed	Closed	10.26	Inf	6.56	383.4	2481.5	241.9	
61205097b	Highway- Cycle 2		05/29/12	22.07	42.80	29.12	SM	Off	Off	Closed	Closed	10.25	Inf	6.36	374.7	2346.5	228.8	
61205098a	Highway- Cycle 3		05/29/12	21.22	45.57	29.11	SM	Off	Off	Closed	Closed	10.25	Inf	6.47	368.3	2349.7	229.3	
61205098b	Highway- Cycle 4		05/29/12	21.22	45.57	29.11	SM	Off	Off	Closed	Closed	10.25	Inf	6.51	359.3	2305.8	225.0	
61205099a	Highway- Cycle 5		05/29/12	21.39	46.30	29.11	SM	Off	Off	Closed	Closed	10.25	52.9	0.19	0.94	354.1	301.6	29.4
61205099b	Highway- Cycle 6		05/29/12	21.39	46.30	29.11	SM	Off	Off	Closed	Closed	10.25	48.5	0.21	0.06	354.5	-9.7	-0.9
61205100a	Highway- Cycle 7		05/29/12	21.43	45.44	29.13	SM	Off	Off	Closed	Closed	10.24	47.7	0.21	0.03	354.5	-20.5	-2.0
61205100b	Highway- Cycle 8		05/29/12	21.43	45.44	29.13	SM	Off	Off	Closed	Closed	10.25	48.6	0.21	-0.03	354.3	-39.9	-3.9
Full charge test summary												Totals	71.75	0.83	26.9	9755		
Re-charging information				N/A Ambient temperature during charge				HV battery integrated current [DC Ah] nt [DC Ah]				26.75						
Level:								Charger integrated current [AC Ah] nt [AC Ah]				58.61						
												HV battery integrated power [DC Wh]		N/A				
												Charger integrated power [AC Wh]		11762				
61205101a	US06- Cycle 1		05/30/12	21.87	43.39	29.18	SM	Off	Off	Closed	Closed	8.01	Inf	7.08	381.2	2621.2	327.4	
61205101b	US06- Cycle 2		05/30/12	21.87	43.39	29.18	SM	Off	Off	Closed	Closed	8.01	Inf	7.01	371.9	2532.4	316.0	
61205102a	US06- Cycle 3		05/30/12	20.03	44.83	29.17	SM	Off	Off	Closed	Closed	8.02	Inf	7.27	364.3	2573.9	320.8	
61205102b	US06- Cycle 4		05/30/12	20.03	44.83	29.17	SM	Off	Off	Closed	Closed	8.02	108.5	0.07	5.39	353.5	1825.9	227.8
61205103a	US06- Cycle 5		05/30/12	20.41	43.93	29.17	SM	Off	Off	Closed	Closed	8.02	32.9	0.25	-0.10	353.9	-89.1	-11.1
61205103b	US06- Cycle 6		05/30/12	20.41	43.93	29.17	SM	Off	Off	Closed	Closed	8.02	33.5	0.24	0.02	354.2	-45.8	-5.7
Full charge test summary												Totals	48.09	0.57	26.7	9418		
Re-charging information				N/A Ambient temperature during charge				HV battery integrated current [DC Ah] nt [DC Ah]				26.52						
Level:								Charger integrated current [AC Ah] nt [AC Ah]				56.91						
												HV battery integrated power [DC Wh]		N/A				
												Charger integrated power [AC Wh]		11481				

Summary notes

For the highway and US06 cycles in this summary, two test cycles were conducted in succession. The first is labeled as "a" the second as "b"

Electric energy consumption:

HV battery Integrated net current --> Integrated current as reported by power analyzer

HV battery Average Zero crossing Voltage --> Calculated average zero crossing voltage over the phase or cycle

HV Net Energy --> Integrated power as reported by power analyzer

Note that HV Net Energy is not equal to the product of HV battery Integrated net current times Average Zero crossing Voltage.

* The vehicle coast down information for EPA

Advanced Powertrain Research Facility Data referencing:

- This data has originated from the Argonne National Laboratory D³ website. http://webapps.anl.gov/vehicle_data/

- The purpose of this information is to provide advanced technology vehicle chassis dynamometer test data for the engineering community. Mostly comprised of vehicle benchmarking test results, it is intended for the better understanding of the technology and for education. Data from this website may not be used as a source for publication or profit without consent of Argonne National Laboratory.

- Please contact d3info@anl.gov for questions, comments or inquiries.